

## Catalyst for the carbonylation of oxiranes

## Abstract

5 Lactones are prepared by the catalytic carbonylation of oxiranes using a catalyst system comprising

- 10 a) at least one carbonylation catalyst A comprising uncharged or anionic transition metal complexes of metals of groups 5 to 11 of the Periodic Table,
- b) at least one metal compound B of the formula (I)



where

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M is an element of group 2, 3, 4, 12, 13,

R is hydrogen or a hydrocarbon radical which may be substituted on the carbon atoms other than on the carbon atom bound to M,

X is an anion,

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n is a number corresponding to the valence of M,

x is in the range from 0 to n, and

- c) at least one organic, chiral compound C which has fewer than four coordination sites.